

WHAT IS CLAIMED IS:

1. A cathode ray tube, comprising:
a panel including a phosphor layer being formed;
a funnel connected to said panel, said funnel including a neck having a region for housing an electron gun and a region including a stem being sealed; and
said stem having a plurality of stem pins, each stem pin being supported by each stem mound for applying voltage to each electrode of the electron gun, the inside diameter of said stem sealing region of said neck being greater than the electron gun housing region, the diameter of an inner stem pin circle formed by interior stem pins disposed on the inside of said neck being less than an outer stem pin circle formed by exterior stem pins disposed on the outside of said neck, a horizontal length between an outer edge of said stem mound and an interior of said neck being in the range greater than or equal to 1.0 mm and less than or equal to 2.0 mm.

2. The cathode ray tube of claim 1, with the outside diameter of the electron gun housing region of the neck being from 21.8 millimeters to 23.2 millimeters.

3. The cathode ray tube of claim 1, with the number of stem pins being at least nine.

4. The cathode ray tube of claim 2, with the number of stem pins being at least nine.

5. The cathode ray tube of claim 1, with the stem sealing region of the neck being flared out from the electron gun-housing region of the neck at a predetermined angle.

6. A cathode ray tube, comprising:

2 a panel including a phosphor layer being formed;
3 a funnel connected to and tapered from said panel; and
4 a neck connected to said funnel and including an electron gun housing region and a stem
5 sealing region, to which a stem including a plurality of stem pins arranged in an annular shape and
6 passing therethrough for introducing signal voltages from an external circuit being sealed, an outside
7 diameter of the electron gun housing region being in the range from 21.8 to 23.2 and the stem sealing
8 region being in the range greater than the outside diameter of the electron gun housing region and
9 less than or equal to 24.0 mm.

7. The cathode ray tube of claim 6, further comprising a flare portion being disposed
at one end of said neck.

8. The cathode ray tube of claim 6, with said stem being introduced into and sealed to
the stem sealing region of said neck.

9. The cathode ray tube of claim 7, with said stem being introduced into and sealed to
the stem sealing region of said neck.

10. A cathode ray tube, comprising:
a funnel comprising a neck including a region for housing an electron gun and a region to
which a stem is sealed; and
said stem having a plurality of stem pins, each stem pin being supported by each stem mound
for applying voltage to each electrode of the electron gun, the inside diameter of the stem sealing
region of the neck being greater than the electron gun housing region, the diameter of an inner stem
pin circle formed by interior stem pins disposed on the inside of the neck being less than an outer

8 stem pin circle formed by exterior stem pins disposed on the outside of the neck, a horizontal length
9 between an outer edge of the stem mound and an interior of the neck being in the range greater than
10 or equal to 1.0 mm and less than or equal to 2.0 mm.

1 11. The cathode ray tube of claim 10, with the outside diameter of the electron gun-
2 housing region of the neck being from 21.8 millimeters to 23.2 millimeters.

1 12. The cathode ray tube of claim 10, with the number of stem pins being at least nine.

13. The cathode ray tube of claim 11, with the number of stem pins being at least nine.

14. The cathode ray tube of claim 10, with the stem sealing region of the neck being
flared out from the electron gun-housing region of the neck at a predetermined angle.